

Patent claims

1. Method for enhancement with finishing commands of an input document data stream that comprises at least one input format file (23) containing  
5       format definitions and an input document data file (22) structured in ranges and/or sub-ranges and containing variable data, whereby in a control file (46) level structures are defined that correspond to the ranges (40) and/or the sub-ranges (41, 42, 43, 44) of the input document data file (22), whereby in the control file (46) the finishing commands are associated with  
10       the levels, and whereby using the control file (46), the input format file (23) and the input document data file (22), the following are automatically generated by a computer program module (50):
  - (a)     an output format file (51) that contains the finishing commands in callable groups, and
  - 15       (b)     an output document data file (52) containing the variable data and group calls associated range-by-range or sub-range-by-sub-range.
2. Method according to claim 1, whereby in the control file (46) the finishing commands (47) and the levels (48) are defined and it is registered which  
20       finishing commands are applied in which level.
3. Method according to claim 2, whereby in the control file (46) it is established which processing commands are executed on which levels.
- 25   4. Method according to any of the preceding claims, whereby the document processing system (1) is a data production system that comprises a printing device (26, 27) and at least one device (18a, 18b) for processing of the print good (19) before or after the printing event, and whereby the finishing commands activate at least one of the devices (18a, 18b) for processing of  
30       the print good (19) before or after the printing event.

5. Method according to any of the preceding claims, whereby the data of the output format definition file (51) and the data of the output document file (52) are generated corresponding to one another with the computer program module (50).  
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6. Method according to any of the preceding claims, whereby the resource-structured input document data stream (22) and/or the resource-structured output document data stream is an Advanced Function Presentation<sup>TM</sup> data stream.  
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7. Method according to any of the claims 1 through 5, whereby the resource-structured input document data stream (22) and/or the resource-structured output document data stream is an XML, PPML, PCL or PostScript data stream.  
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8. Method according to the claim 6, whereby the input and output format definition files (23, 51) are respectively a formdef file, and that the computer program section (50) provides the output formdef file (51) with modified medium maps relative to the input formdef file (23).  
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9. Method according to claim 6 and claim 8, whereby the output document file (52) is a print file with variable print data, and the computer program section (50) enhances the variable data with calls of the medium maps of the output formdef file (51).  
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10. Method according to any of the preceding claims, whereby a non-resource-structured file is read in and is converted into a resource-structured input data stream and then is subjected to a method according to anemdy [sic] of the preceding claims.  
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11. Method according to claim 10, whereby [sic] non-resource-structured file is a line data file.
12. Method according to one of the claims 10 or 11, whereby the same  
5 computer program module (50) as is used to prepare the resource-structured input file is used to convert the non-resource-structured file.
13. Method to change or remove finishing commands in an input print data  
10 stream that comprises at least one input format file (23) containing format definitions and an input document data file (22) structured in ranges and/or sub-ranges and containing variable data, whereby in a control file (46) level structures are defined that correspond to the ranges (40) and/or the sub-ranges (41, 42, 43, 44) of the input document data file (22), whereby in the control file (46) the modified finishing commands are associated with the  
15 levels, and whereby using the control file (46), the input format file (23) and the input document data file (22), the following are automatically generated by a computer program module (50):
  - (a) an output format file (51) that contains the finishing commands in callable groups or that no longer contains the removed finishing commands,  
20 and
  - (b) an output document data file (52) containing the variable data and group calls associated range-by-range or sub-range-by-sub-range.
14. Computer program product for enhancement with finishing commands of  
25 an input document data stream that comprises at least one input format file (23) containing format definitions and an input document data file (22) structured in ranges and/or sub-ranges and containing variable data, whereby in a control file (46) level structures are defined that correspond to the ranges (40) and/or the sub-ranges (41, 42, 43, 44) of the input document  
30 data file (22), whereby in the control file (46) the finishing commands are associated with the levels, and whereby using the control file (46), the input

format file (23) and the input document data file (22), the following are automatically generated by a computer program module (50):

- (a) an output format file (51) that contains the finishing commands in callable groups, and
  - 5 (b) an output document data file (52) containing the variable data and group calls associated range-by-range or sub-range-by-sub-range.
15. Computer program product according to claim 14, whereby in the control file (46) the finishing commands (47) and the levels (48) are defined and it  
10 is registered which finishing commands are applied in which level.
16. Computer program product according to claim 15, whereby in the control file (46) it is established which processing commands are executed on which levels.  
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17. Computer program product according to any of the claims 14 through 16, whereby the document processing system (1) is a data production system that comprises a printing device (26, 27) and at least one device (18a, 18b) for processing of the print good (19) before or after the printing event, and  
20 whereby the finishing commands activate at least one of the devices (18a, 18b) for processing of the print good (19) before or after the printing event.
18. Computer program product according to any of the claims 14 through 17, whereby it is suitable to process an Advanced Function Presentation<sup>TM</sup>  
25 data stream as a resource-structured input document data stream (22) and/or as a resource-structured output document data stream, whereby the computer program section (50) provides the output formdef file (51) with modified medium maps relative to the input formdef file (23), and whereby the output document file (52) is a print file with variable print data and the  
30 computer program section (50) enhances the variable data with calls of the medium maps of the output formdef file (51).

19. Device system for enhancement with finishing commands of an input document data stream that comprises at least one input format file (23) containing format definitions and an input document data file (22) structured in ranges and/or sub-ranges and containing variable data, whereby in a control file (46) level structures can be defined that correspond to the ranges (40) and/or the sub-ranges (41, 42, 43, 44) of the input document data file (22), whereby in the control file (46) the finishing commands are associated with the levels, and whereby a computer program module (5) is provided via which, using the control file (46), the input format file (23) and the input document data file (22), the following are automatically generated:
- (a) an output format file (51) that contains the finishing commands in callable groups, and
  - (b) an output document data file (52) containing the variable data and group calls associated range-by-range or sub-range-by-sub-range.
20. Device system according to claim 19, whereby in the control file (46) the finishing commands (47) and the levels (48) are defined and it is registered which finishing commands are applied in which level.
21. Device system according to claim 20, whereby in the control file (46) it is established which processing commands are executed on which levels.
22. Device system according to any of the claims 19 through 21, whereby the document processing system (1) is a data production system that comprises a printing device (26, 27) and at least one device (18a, 18b) for processing of the print good (19) before or after the printing event, and whereby at least one of the devices (18a, 18b) is designed such that it can interpret the finishing commands for processing of the print good (19) before or after the printing event.

23. Device system according to any of the claims 19 through 22, whereby a device (4) is provided to receive the resource-structured input document data stream (22) and is designed such that it can interpret and/or process an  
5 Advanced Function Presentation<sup>TM</sup> data stream.
24. Device system according to any of the claims 19 through 23, whereby a device (4) is provided to receive the resource-structured input document data stream (22) and is designed such that it caninterpret [sic] and/or  
10 process an XML, PPML, PCL or PostScript data stream.